REMARKS

Favorable reconsideration of this application is respectfully requested.

Claims 1-24 are pending in this application. Claims 1-24 were rejected under 35 U.S.C. § 112, first paragraph. Claims 1-24 were rejected under 35 U.S.C. § 112, second paragraph. Claims 1-5, 8-13, 16-20, and 22 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. patent 6,219,697 to Lawande et al. (herein "Lawande"). Claims 6, 7, 14, 15, 21, 23, and 24 were rejected under 35 U.S.C. § 103(a) as unpatentable over Lawande in view of U.S. patent 6,349,352 to Lea. Claims 1-24 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. patent 6,523,696 to Saito et al. (herein "Saito").

Addressing first the rejections of Claims 1-24 under 35 U.S.C. § 112, first and second paragraphs, those rejections are traversed by the present response.

With respect to the above-noted rejections, the outstanding Office Action cites several phrases in the claims that are noted as either not supported by the written disclosure or unclear.

In response to the above-noted rejections under 35 U.S.C. § 112, first and second paragraphs, applicants submit that the claims are fully supported by the original specification, and the claims are also amended by the present response to make that more clear.

First, applicants note that claims 1-15 are directed to a communication node (e.g. base station node) such as described, for example, in the second embodiment and that has a configuration such as shown in Figure 26 in the present specification, and variations thereof are described in the third to sixth embodiments that have configurations such as shown in Figures 33, 45, and 58 in the present specification. Further, claims 16-18 are directed to a communication node (e.g. base station node) such as described, for example, in the first embodiment and having a configuration such as shown in Figure 11.

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Further, claims 19-21 are directed to a communication terminal (e.g. radio terminal) such as described, for example, in the second embodiment and having the configuration such as shown in Figure 27 in the present specification, and variations thereof are described, for example, in the third to sixth embodiments and that have configurations such as shown in Figure 46 in the present specification.

Claims 22-24 are directed to a communication terminal (e.g. radio terminal) such as described, for example, in the first embodiment and having a configuration such as shown in Figure 12 in the present specification.

Thus, applicants respectfully submit that the features set forth in the claims are clearly supported by the original specification.

Applicants also note that the claim language is amended by the present response to clarify features recited therein to be more consistent with the disclosed terminology.

In that respect applicants also note that it is apparent that the "processing unit" now recited in claims 1-15 corresponds to the "packet conversion processing unit" such as shown for example in Figures 26, 33, or 58, or the "AV/C protocol-radio AV/C protocol conversion processing unit" of Figure 45. It is also apparent that the "configuration information correspondence memory unit" of claim 10 corresponds to the "SubUnit _ID correspondence table" of Figures 26, 45, or 58.

It is also apparent that the "processing unit" now recited in claims 16-18 corresponds to the "Radio/1394 transfer processing unit" of Figure 11.

It is also apparent that the "processing unit" now recited in claims 19-29 corresponds to the "FCP frame processing unit" of Figures 27 or 46.

It is also apparent that the "processing unit" now recited in claims 22-24 corresponds to the "Radio/1394 transfer processing unit" of Figure 12 and that the "application execution unit" of claim 22 corresponds to the "application execution unit" of Figure 12.

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Applicants also note that it is apparent that the "sub constituent elements" of claims 2

and 9 correspond to the "Sub_Sub Unit" shown for example in Figure 51.

Applicants also note that as would also be clearly apparent from the original

disclosure a concrete environment under which the claimed communication node and

communication terminal could be used is typically a base station node to be connected to a

1394 bus on one hand, and a radio network on the other hand. The claimed communication

terminal could typically be a radio terminal connected to a radio network, shown for example

in Figure 1 in the present specification. However, applicants note that the claimed invention

is not necessarily limited to such specific environments and is actually applicable to many

modified environments as discussed in the present specification at page 97, lines 18-29.

Therefore, applicants submit that one of ordinary skill in the art would clearly understand one

concrete environment of the claimed invention as noted above, but would also understand

that the claimed invention could be applied to different environments.

In view of the above-noted comments and the presently-submitted claim amendments,

it is respectfully submitted that each of claims 1-24 is in full compliance with all

requirements under 35 U.S.C. § 112, first and second paragraphs.

Addressing now the rejection of claims 1-5, 8-13, 16-20, and 22 under 35 U.S.C.

§ 103(a) as unpatentable over Lawande, and the further rejection of claims 6, 7, 14, 15, 21,

23, and 24 under 35 U.S.C. § 103(a) as unpatentable over Lawande in view of Lea, those

rejections are traversed by the present response.

First, regarding the claimed "communication node", applicants note independent

claim 1 recites the communication node (e.g. base station node) is "configured to recognize

one communication node on the first network [e.g. a radio network] as one of constituent

elements" (e.g. Sub Units) and is further configured "to disclose an own configuration

information to another communication node on the second network" (e.g. 1394 bus), such

that the another communication node on the second network (1394 bus) recognizes that one

communication node on the first network (radio network) as if it is a constituent element (Sub

Unit) of the claimed communication node. In other words, one communication node is not

recognized as existing on the first network (although that is actually the case) but instead it is

recognized as if it is a part of the claimed communication node on the second network.

Similarly, independent claim 8 recites the communication node "disclosing a first

configuration information regarding constituent elements [e.g. Sub Units] in one

communication node on the first network [e.g. radio network]" as its own constituent

elements (Sub Units), "to another communication node on the second network" (e.g. 1394

bus) and/or "disclosing a second configuration information regarding constituent elements

[Sub Units] in said another communication node on the second network" (1394 bus) as its

own constituent elements (Sub Units), "to said one communication node on the first network"

(radio network). In other words, the communication node of claim 8 provides a configuration

information disclosing function similar to that of the communication node of claim 1, with

respect to both communication nodes on both networks.

Independent claim 16 recites the communication node configured to "transfer data to

be exchanged ... between the processing unit and an application executed on another

communication node on the second network [e.g. 1394 bus], through the first interface unit"

connected to the first network (e.g. radio network), such that the one communication node

connected to the first network (radio network) is handled as if it is connected to the second

network (1394 bus). In other words, the claimed communication node transfers data to the

one communication node on the first network (radio network), on behalf of the application

that is executed at the another communication node on the second network (1394 bus).

Also, regarding the claimed communication terminal, independent claim 19 recites the

communication terminal configured to "communicate with a communication node on a

second network [e.g. 1394 bus]" and to "disclose functions in said communication terminal

as Sub Units in an AV/C (Audio/Visual Control) protocol executed on an IEEE 1394 bus",

and to "receive at least a pat of the information regarding Sub Units existing in the second

communication node" on the second network (1394 bus), while making a connection to a

communication node on the first network (e.g. radio network). In other words, the claimed

communication terminal is actually connected to the first network (radio network), but it is

also capable of communicating with a node on the second network (1394 bus) through a

communication node (base station node) as described in claim 1 or 8, by disclosing its own

functions as if they are Sub Units on the 1394 bus.

Independent claim 22 recites the communication terminal configured to

"communicate with a second communication node on a second network [e.g. 1394 bus]" and

"configured to execute an application on the second network [1394 bus]", while making a

connection to a communication node on the first network (e.g. radio network). In other

words, the claimed communication terminal is actually connected to the first network (radio

network), but it is also capable of communicating with a node on the second network (1394

bus) through a communication node (base station node) as described in claim 16, by

executing the application on the second network (1394 bus), at the communication terminal

itself.

Applicants submit the Office Action erroneously contends that the claimed features of

the independent claims are basically disclosed in Lawande.

Regarding independent claims 1 and 8, the Office Action contends that the claimed

processing unit is disclosed by Lawande at col. 13, lines 37-67, col. 14, lines 23-36, and col.

12, lines 11-27.[1]

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[1] Office Acton of April 1, 2003, the sentences bridging pages 6-7.

However, col. 13, lines 37-67, of <u>Lawande</u> only describes a self identity phase in which each node acquires a new 1394 physical address and advertises it to the network by broadcasting the self-identification packet, and the manager identifies a phase in which the root node searches and determines the manager capable nodes in the system. Also, col. 14, lines 23-36, of <u>Lawande</u> only describes an operation of the root node to transmit a message to enable root connection and a look-up table of addresses to the node that is selected as the manager, and to then initiate a second bus reset. Applicants note that both of these noted portions of <u>Lawande</u> are part of the description of the initialization processing that takes place in the case of the bus reset (see col. 12, line 29, to col. 16, line 5).

On the other hand, col. 12, lines 11-27, of <u>Lawande</u> only describes conversion from the IP address to the physical address to transfer data over the IEEE 1394 physical layer in relation to the layered architecture shown in Fig. 5 (see col. 11, line 28, to col. 12, line 27). This description, however, apparently has no direct relation with the description of the initialization processing noted above.

Applicants submit it is apparent that the initialization processing and the address conversion disclosed by <u>Lawande</u> contain absolutely no teaching or suggestion of a communication node that recognizes one communication node on a first network as one of its own constituent elements and discloses its own configuration information to another communication node on a second network, such that this another communication node on the second network recognizes that one communication node on the first network as if it is a constituent element of the claimed communication node, as recited in claim 1.

Applicants submit it is also apparent that the initialization processing and the address conversion disclosed by <u>Lawande</u> contain absolutely no teaching or suggestion of a communication node that discloses the first configuration information regarding constituent elements in one communication node on a first network as its own constituent elements, to

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another communication node on a second network, and/or discloses the second configuration

information regarding constituent elements in the another communication node on the second

network as its own constituent elements, to the one communication node on the first network,

as recited in claim 8.

Thus, Lawande actually fails to disclose any teachings corresponding to the

"processing unit" of claims 1 and 8, and therefore Lawande does not render obvious claims 1

and 8, and the claims dependent therefrom.

Regarding independent claim 16, the Office Action erroneously contends that the

claimed "processing unit" is disclosed by Lawande at col. 12, lines 11-27, and Fig. 5.

Col. 12, lines 11-27, of Lawande only describes the conversion from the IP address to

the physical address to transfer data over the IEEE 1394 physical layer, and Fig. 5 only shows

the layered architecture.

Applicants submit it is apparent that the address conversion and the layered

architecture disclosed by Lawande contain absolutely no teaching or suggestion of a

communication node that transfers data to be exchanged between a processing unit and an

application executed on another communication node on a second network, through a first

interface unit connected to a first network, such that the one communication node connected

to the first network is handled as if it is connected to the second network, as recited in claim

16.

Thus Lawande actually fails to disclose any teachings corresponding to the

"processing unit" of claim 16, and therefore Lawande does not render obvious claim 16, and

the claims dependent therefrom.

Regarding independent claim 19, the Office Action erroneously contends that the

claimed "processing unit" is disclosed by Lawande at col. 6, lines 10-41.

Col. 6, lines 10-41, of <u>Lawande</u> only describes stackable architecture of the Remote Access and Routing Server in which suboperations are implemented as separate devices including a routing device, a digital call terminating device, and an analog-digital call terminating device.

Applicants submit it is apparent that the server architecture disclosed by <u>Lawande</u> contains absolutely no teaching or suggestion of a communication terminal that communicates with a communication node on a second network, discloses this communication terminal as Sub Units in an AV/C protocol executed on an IEEE 1394 bus, and receives the information regarding Sub Units existing in that communication node on the second network, while making a connection to a communication node on a first network, as recited in claim 19.

Thus, <u>Lawande</u> actually fails to disclose any teachings corresponding to the "processing unit" of claim 19, and therefore <u>Lawande</u> fails to render obvious claim 19, and the claims dependent therefrom.

Regarding independent claim 22, the Office Action erroneously contends that the claimed "application execution unit" is disclosed by <u>Lawande</u> at col. 12, lines 11-27, and Fig. 5.

Col. 12, lines 11-27, of <u>Lawande</u> only describes conversion from an IP address to the physical address to transfer data over the IEEE 1394 physical layer, and Fig. 5 only shows the layered architecture.

Applicants submit it is apparent that the address conversion and the layered architecture disclosed by <u>Lawande</u> contain absolutely no teaching or suggestion of a communication terminal that communicates with a communication node on a second network and executes an application on the second network, while making a connection to a communication mode on a first network, as recited in claim 22.

Thus, Lawande actually fails to disclose any teachings corresponding to the "application execution unit" of claim 22, and therefore Lawande fails to render obvious claim 22, and the claims dependent therefrom.

Further, no teachings in Lea could overcome the above-noted deficiencies in Lawande.

In such ways, each of claims 1-24 are believed to clearly distinguish over the teachings in Lawande individually, and further in view of Lea.

With respect to the rejection based on Saito, the Office Action also erroneously contends that the claimed features of the independent claims are basically disclosed in col. 2, line 66, to col. 5, line 53 of Saito.[2]

The noted portions of Saito merely disclose a communication control device (AV connection device) that collects service information of devices connected to the first network (1394 bus) and notifies the collected service information to a device connected to a second network (public network). The service information collected and notified is information regarding a service provided by the device on the first network, which is distinct from disclosing a certain device as a Sub Unit of some other device. Also, the communication control device is positioned similarly as the claimed communication node, but it is clearly distinct from the claimed "communication terminal".

Applicants submit it is apparent that the service information collection and notification disclosed by Saito contain absolutely no teaching or suggestion of a communication node that recognizes one communication node on a first network as one of its own constituent elements and discloses its own configuration information to another communication node on a second network, such that this another communication node on the

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[2] Office Action of April 1, 2003, page 11.

second network recognizes that one communication node on the first network as if it is a constituent element of the claimed communication node, as recited in claim 1.

Applicants submit it is also apparent that the service information collection and notification disclosed by Saito contain absolutely no teaching or suggestion of a communication node that discloses the first configuration information regarding constituent elements in one communication node on a first network as its own constituent elements, to another communication node on a second network, and/or disclosing the second configuration information regarding constituent elements in the another communication node on the second network as its own constituent elements, to the one communication node on the first network, as recited in claim 8.

Thus, Saito actually fails to disclose any teachings corresponding to the "processing unit" of claims 1 and 8, and therefore Saito fails to render obvious claims 1 and 8, and the claims dependent therefrom.

Applicants submit it is also apparent that the service information collection and notification disclosed by Saito contain absolutely no teaching or suggestion of a communication node that transfers data to be exchanged between a processing unit and an application executed on another communication node on a second network, through a first interface unit connected to a first network, such that the one communication node connected to the first network is handled as if it is connected to the second network, as recited in claim 16.

Thus, Saito actually fails to disclose any teachings corresponding to the "processing unit" of claim 16, and therefore Saito fails to render obvious claim 16, and the claims dependent therefrom.

Applicants submit it is also apparent that the service information collection and notification disclosed by Saito contain absolutely no teaching or suggestion of a

communication terminal that communicates with a communication node on a second

network, discloses this communication terminal as Sub Units in an AV/C protocol executed

on an IEEE 1394 bus, and receives the information regarding Sub Units existing in that

communication node on the second network, while making a connection to a communication

node on a first network, as recited in claim 19.

Thus, Saito actually fails to disclose any teachings corresponding to the "processing

unit" of claim 19, and therefore Saito fails to render obvious claim 19, and the claims

dependent therefrom.

Applicants submit it is also apparent that the service information collection and

notification disclosed by Saito contain absolutely no teachings of a communication terminal

that communicates with a communication node on a second network and executes an

application on the second network, while making a connection to a communication node on a

first network, as recited in claim 22.

Thus, Saito actually fails to disclose any teachings corresponding to the application

execution unit of claim 22, and therefore Saito fails to render obvious claim 22, and the

claims dependent therefrom.

In such ways, each of claims 1-24 is believed to clearly distinguish over the teachings

in Saito.

As no other issues are pending in this application, it is respectfully submitted that the

present application is now in condition for allowance, and it is hereby respectfully requested

that this case be passed to issue.

Respectfully submitted,

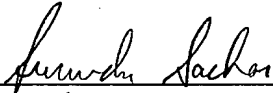OBLON, SPIVAK, McCLELLAND,
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